



# Huawei FusionSolar

# Northbound API Accounts

27<sup>th</sup> February 2023

## OVERVIEW

In order for 3rd party applications to be able to consume data from Huawei FusionSolar there is a need for the 3rd party to be issued with a Northbound API Account from within the Huawei FusionSolar Portal by the Company Administrator that contains the end customers PV plants.

Huawei's FusionSolar system only allows for a company to have 5 Northbound API accounts associated with their company, it is not on a per customer basis, it is intended that a particular 3rd party application will have a single account and it would be able to access the data for each customer that consents to allowing that integration to access their data.

## PURPOSE

This guide was written to help solar installation companies with an easy step by step procedure they can follow to setup a Northbound API Account for a 3rd party, in particular the ChargeHQ integration which allows Electric Vehicle owners to charge their car using only the excess power from their solar PV plant rather than importing power from the grid.

## SCOPE

This procedure assumes the solar installation company knows how to log into the FusionSolar portal and they are logging in as the company administrator.

This guide is written with the example 3rd party integration point being ChargeHQ, the same procedure would be able to be followed for other integrations with anything that references ChargeHQ being replaced with the 3rd party integrations name instead.

## PREREQUISITES

### Log into FusionSolar Portal

Your login for the FusionSolar portal will be assigned to a specific FusionSolar regional portal, your company login will not work for portals in other regions so it's important that you know where you are to login. A couple of the common servers that Australian solar companies are associated with are:

- <https://intl.fusionsolar.huawei.com/unisso/login.action>
- <https://sq5.fusionsolar.huawei.com/unisso/login.action>

### Know the Customers Plant Details

When the customer contacts you you'll need to be able to find their plant from all your Huawei FusionSolar plants under your company and associate that with the Northbound API Account.

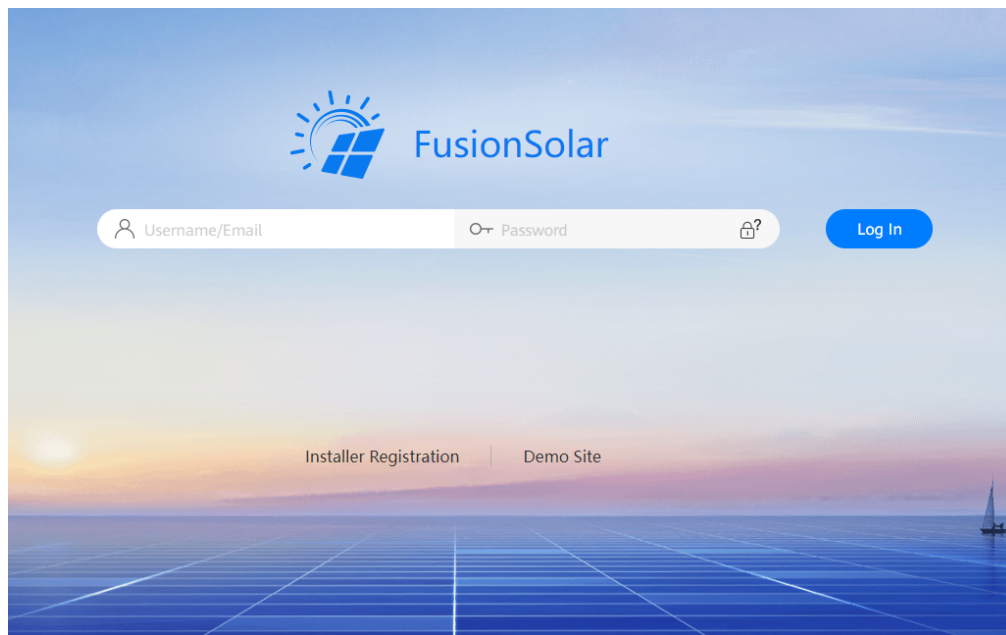
## RESPONSIBILITIES

It is the responsibility of the Solar Installation company to create and maintain the Northbound API Account. Once the Northbound Account has been created the only task that will be ongoing is to add customers plants to the account and inform the customer of the username and password for the API account (or provide it directly to the 3rd party integration if the request came from the 3rd party integration on behalf of the shared customer).

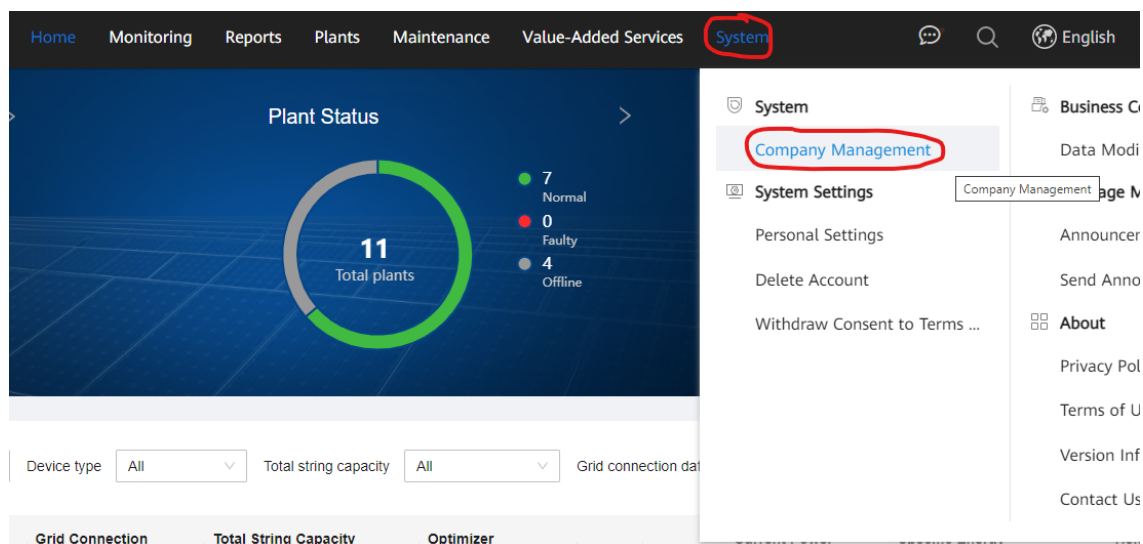
## PROCEDURES

### Creating a Northbound API Account

1. Login to the FusionSolar Portal that your company was created on by Huawei (see *prerequisites* section of this document if unsure of portal address)

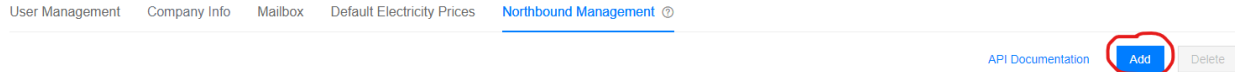


2. From the top navigation of the portal hover over **System** and then select **Company Management** as shown below:



3. From the tabs in the Company Management page select **Northbound Management** as shown below:

4. Click the **Add** button as shown below:



5. The Add dialog will appear, set the fields using the following guidance for what values would be appropriate:

**Add** X

\* System name:  \* Deadline:  Interface status: ☒ On

System introduction:

\* Associated ...  \* Username  \* Password:  Reset password: ☐ Off

**System name:** This needs to be globally unique, for this reason I suggest you include your companies initials or a shortened form of the company name in it to ensure it's unique, postfix the name with the name of the integration the account is for e.g. If your solar company was called "The Best Solar Firm" an appropriate name might be TBSF\_ChargeHQ\_Poller. If the name is already taken when you click OK on the dialog you'll be told the System name needs to be unique and to pick another name.

**Deadline:** Give this a very long expiry date, the customer is likely to want to use this integration for much longer than you want to be administering this, I suggest you simply pick a date in the future like 31/12/2199 which will essentially never expire.

\* Deadline:  Interface status: ☒ On

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Su	Mo	Tu	We	Th	Fr	Sa
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	1	2	3	4
5	6	7	8	9	10	11

Now

To use this date picker click on the year that is displayed first, at the top of the dialog (*in this screenshot it is 2023*), scroll through to the year 2199 and select that. When you click on the year it will then give you a month picker, then once you select the month the day picker appears and then select a time in 24hr format. Click OK when the date is selected.

**System introduction:** Use the following text that describes the purpose of this integration account:

*This provides owners with the ability to poll the usage data and push it to ChargeHQ so they can charge EV cars with just their excess solar output. The integration is provided by ChargeHQ's PUSH API.*

**IF FOLLOWING THIS PROCEDURE FOR A DIFFERENT INTEGRATION PUT IN A SUITABLE DESCRIPTION THAT WILL ALLOW OTHER ADMINS WITHIN YOUR COMPANY TO SEE WHAT THE ACCOUNT IS FOR.**



**Associated account:** Select your own account from this or the first customer that requests the use of this integration, it has no effect on the overall account. If the customer chosen was to decommission their system it could potentially cause problems so that's why I suggest the solar installers user account.

**Username:** Again this is globally unique so use a similar technique for tying it between the solar companies name and the integration it is for e.g. *using the same fictitious company name from before TBSFChargeHQ might be a good username to pick, pick what is appropriate for your company.*

**Password:** This is the password for the account, record down what it is, you won't be able to see it again after this point, you'll only be able to reset it and if you reset it you'll need to contact each customer that is using it to inform them of the new password as it is shared by everyone using this integration account.

6. The next section is for granting the permission of this Northbound API Account to the various FusionSolar API interfaces, you want to grant as much access as possible because it will be shared between many users with varying system configurations (some will have batteries and others will not etc).

### Plant list

Interface Name	Interface Description	Status
 Plant list	Used to obtain basic plant information by third-party system ID. This interface must be configured before other interfaces are enabled.	

When you turn this on with the toggle button a picker will appear allowing you to select from a tree either the root element which is the company and granting access to all plants or select the individual plants that you want this account to be able to access. At a minimum you should be selecting the plant of the customer that has requested this API account be created. Select the plant(s) or company by checking the checkbox next to it and then click the >> button to end it into the appropriate selected lists.



### Real-time plant data

<input checked="" type="checkbox"/> All		
<input checked="" type="checkbox"/> Plant status	<input checked="" type="checkbox"/> Revenue today	<input checked="" type="checkbox"/> Total yield
<input checked="" type="checkbox"/> Yield today	<input checked="" type="checkbox"/> Total revenue	<input checked="" type="checkbox"/> Yield this month

Select **All** as shown above.

### Hourly plant data

<input checked="" type="checkbox"/> All		
<input checked="" type="checkbox"/> Global irradiation	<input checked="" type="checkbox"/> Theoretical yield	<input checked="" type="checkbox"/> Power generation revenue
<input checked="" type="checkbox"/> Export (kWh)	<input checked="" type="checkbox"/> Inverter yield	

Select **All** as shown above.

### Daily plant data

<input checked="" type="checkbox"/> All		
<input checked="" type="checkbox"/> Standard coal saved	<input checked="" type="checkbox"/> Installed capacity	<input checked="" type="checkbox"/> Specific energy (kWh/kWp)
<input checked="" type="checkbox"/> Global irradiation	<input checked="" type="checkbox"/> Equivalent trees planted	<input checked="" type="checkbox"/> Theoretical yield
<input checked="" type="checkbox"/> Power generation revenue	<input checked="" type="checkbox"/> CO <sub>2</sub> avoided (tons)	<input checked="" type="checkbox"/> Consumption
<input checked="" type="checkbox"/> Inverter yield	<input checked="" type="checkbox"/> Performance ratio	<input checked="" type="checkbox"/> Export (kWh)

Select **All** as shown above.

### Monthly plant data

<input checked="" type="checkbox"/> All		
<input checked="" type="checkbox"/> Equivalent trees planted	<input checked="" type="checkbox"/> Power generation revenue	<input checked="" type="checkbox"/> Installed capacity
<input checked="" type="checkbox"/> Performance ratio	<input checked="" type="checkbox"/> Theoretical yield	<input checked="" type="checkbox"/> CO <sub>2</sub> avoided (tons)
<input checked="" type="checkbox"/> Global irradiation	<input checked="" type="checkbox"/> Standard coal saved	<input checked="" type="checkbox"/> Consumption
<input checked="" type="checkbox"/> Export (kWh)	<input checked="" type="checkbox"/> Specific energy (kWh/kWp)	<input checked="" type="checkbox"/> Inverter yield

Select **All** as shown above.

## Yearly plant data

☒ All

<input checked="" type="checkbox"/> Global irradiation	<input checked="" type="checkbox"/> CO <sub>2</sub> avoided (tons)	<input checked="" type="checkbox"/> Standard coal saved
<input checked="" type="checkbox"/> Consumption	<input checked="" type="checkbox"/> Equivalent trees planted	<input checked="" type="checkbox"/> Export (kWh)
<input checked="" type="checkbox"/> Specific energy (kWh/kWp)	<input checked="" type="checkbox"/> Theoretical yield	<input checked="" type="checkbox"/> Performance ratio
<input checked="" type="checkbox"/> Inverter yield	<input checked="" type="checkbox"/> Power generation revenue	<input checked="" type="checkbox"/> Installed capacity

## Device list

This has no specific selections, just toggle it on.

## Real-time device data

This sub-selection requires you to enable access to each different device type, go through each of the tabs presented and select the **All** checkbox for each.

String inverterResidential inverterBatteryESSPower SensorGrid meterEMI

## Daily device data

This sub-selection requires you to enable access to each different device type, go through each of the tabs presented and select the **All** checkbox for each.

String inverterResidential inverterBatteryESS

## Monthly device data

This sub-selection requires you to enable access to each different device type, go through each of the tabs presented and select the **All** checkbox for each.

String inverterResidential inverterBatteryESS

## Yearly device data

This sub-selection requires you to enable access to each different device type, go through each of the tabs presented and select the All checkbox for each.

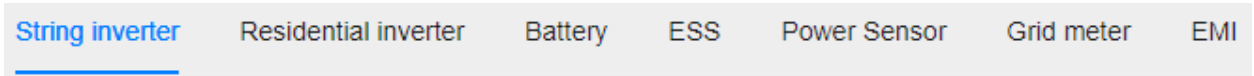
String inverterResidential inverterBatteryESS

## Device alarm

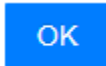
This has no specific selections, just toggle it on.

## Historical Device Data

This sub-selection requires you to enable access to each different device type, go through each of the tabs presented and select the **All** checkbox for each.



7. Click the **OK** button



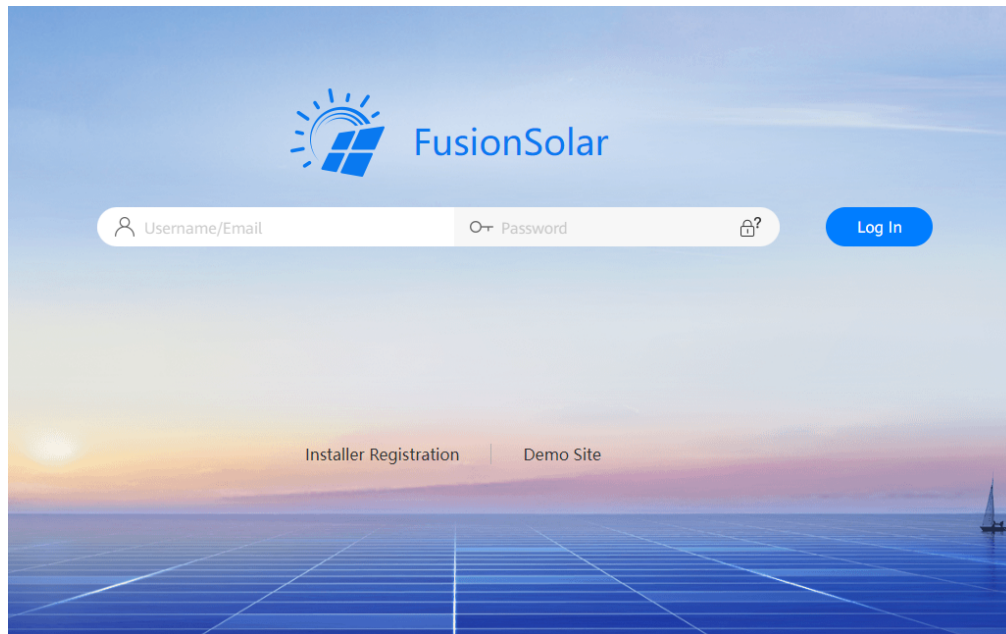
8. The account should now be created and you can verify it appears in the list of Northbound accounts with the **Status** of **On**



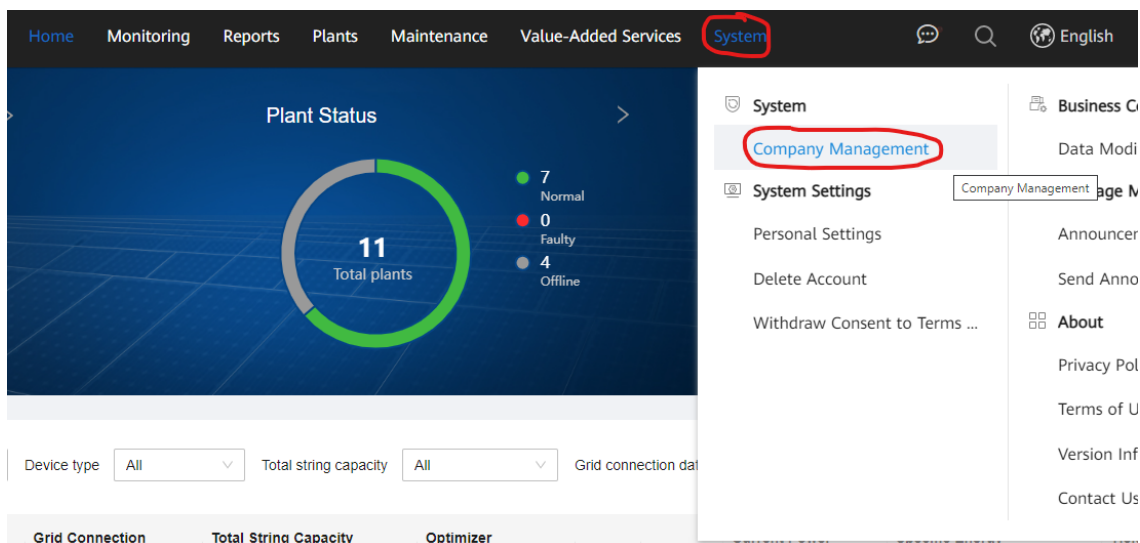
## Associating a Customer's Plant with the Northbound API Account

Once you've created a Northbound API Account for the integration the ongoing management is just adding customer's plants to be associated with the account when they request it. This involves the following procedure.

1. Login to the FusionSolar Portal that your company was created on by Huawei (see *prerequisites* section of this document if unsure of portal address)



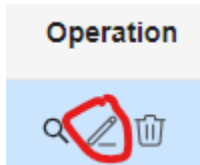
2. From the top navigation of the portal hover over **System** and then select **Company Management** as shown below:



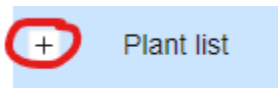
- From the tabs in the Company Management page select **Northbound Management** as shown below:

User Management   Company Info   Mailbox   Default Electricity Prices   **Northbound Management** ⓘ

- Select the pencil icon in the Operations column for the System Name you created in the previous procedure.



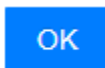
- Expand the Plant list interface with the + button next to the Interface Name **Plant list**



- Find the customer's plant you wish to associate with the Northbound API Account, check the checkbox next to that plant and click the >> button to add it to the selection.



- Leave all other permissions to the interfaces as they were and click the **OK** button



- Inform the party that requested the customers plant be added to the Northbound API Account of the **Username** and **Password** for the Northbound API Account. If the customer requested it directly supply it to them, if it was requested by the 3rd party interfacing software provide it to them.
- DO NOT RESET THE PASSWORD.** The password is shared between all customers using that Northbound API Account, if the password is reset you must notify them all otherwise their integrations will stop working.